



## PAGE OF CONTENT

TITLE PAGE .....	i
APPROVAL PAGE .....	ii
ACKNOWLEDGEMENT .....	iv
PAGE OF CONTENT .....	vi
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
LIST OF APPENDIX .....	xi
ABSTRACT.....	xii
CHAPTER I.....	1
Introduction.....	1
1. Background .....	1
2. Problem Formulation .....	3
3. Research Authenticity .....	3
4. Research Aim.....	5
5. Research benefit.....	5
CHAPTER II.....	6
Bibliographical review .....	6
1. Literature review .....	6
1. 1. Definition and Pathophysiology of Obesity .....	6



1.2. Obesity in Children .....	9
1.3. Definition and Pathophysiology of Left Ventricle Hypertrophy.....	10
1.4. Left Ventricle Hypertrophy in Children.....	13
1.5. Obesity and Left Ventricle Hypertrophy.....	15
2. Theoretical framework.....	17
3. Conceptual framework.....	17
4. Hypothesis.....	18
CHAPTER III .....	19
Research methodology.....	19
1. Research design.....	19
2. Subject and population.....	19
2.1. Inclusion criteria .....	19
2.2. Exclusion criteria .....	20
3. Sample and data collection.....	20
3.1. Sample size .....	20
3.2. Data collection .....	21
4. Variable and operational definition.....	23
4.1. Variable.....	23
4.2 Operational definition .....	23
5. Data analysis .....	24



CHAPTER IV .....	26
Results and Discussion.....	26
1. Results.....	26
1.1. Subject baseline characteristics.....	26
1.2. Correlation Obesity and Left Ventricle Hypertrophy .....	27
1.3. Association Obesity and Left Ventricle Hypertrophy.....	28
2. Discussion .....	29
2.1 Subject Baseline Characteristic.....	29
2.2 Correlation Obesity and Left Ventricle Hypertrophy .....	31
2.3 Association Obesity and Left Ventricle Hypertrophy.....	33
3. Research Limitation .....	35
CHAPTER V.....	36
Conclusion and Recommendation.....	36
1. Conclusion .....	36
2. Recommendation .....	36
REFERENCE.....	37
APPENDIX.....	41



## LIST OF TABLES

Table 1. Review of Research Authenticity.....	4
Table 2. Subject Characteristic.....	26
Table 3. Spearman’s Correlation between Obesity and LVH.....	27
Table 4. Linear Regression between Obesity and LVH in Male Group.....	28
Table 4. Linear Regression between Obesity and LVH in Female Group.....	29



## LIST OF FIGURES

Figure 1. Theoretical Framework.....	17
Figure 2. Conceptual Framework.....	17
Figure 3. Research Subject Flowchart.....	23



UNIVERSITAS  
GADJAH MADA

**Association between Obesity and Left Ventricle Hypertrophy in Adolescents**

MADE DOLLY OKTAYANA, dr. Indah Kartika Murni, Mkes, PhD, Sp.A(K); Prof.dr. Madarina Julia, MPH., Ph.D., Sp.A

Universitas Gadjah Mada, 2018 | Diunduh dari <http://etd.repository.ugm.ac.id/>

**LIST OF APPENDIX**

Appendix 1. Ethical Clearance Approval.....41